



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/517,682

07/05/2005

Young-Min Oh

038779/286036

3035

826

7590

05/07/2007

ALSTON & BIRD LLP

BANK OF AMERICA PLAZA

101 SOUTH TRYON STREET, SUITE 4000

CHARLOTTE, NC 28280-4000

EXAMINER

ALAM, FAYYAZ

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

05/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,682	Applicant(s) OH ET AL.	
	Examiner Fayyaz Alam	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 9 and 15 is/are allowed.
- 6) ☒ Claim(s) 10 - 14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to RCE filed 3/16/2007.

Claims 1 - 9 and 15 were allowed while claims 10 - 14 and 16 remained rejected.

Response to Arguments

Applicant's arguments with respect to claim 10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that limitation in claim 10 "through an antenna" overcomes the prior art as disclosed by Rees et al.

Examiner respectfully disagrees. Please see claim 10 rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10, 11, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rees et al. (UK App. # GB 2,272,604)** in view of **Hokkanen (USPN 5,752,165)**.

Consider **claim 10**, Rees et al. disclose an RBDS (21) (read as measuring device) to perform a method of VSWR measurement (read as receive sensitivity measurement method) coupled to a GSM BSS (read as communication system) including a transmit/receive antenna (202) (read as transmit-and-receive path) and a diversity receive antenna (17) (read as receive only path), the RBDS (211) (read as the measuring device) including a test transceiver (32) (read as terminal) for outputting a test call (read as test signal) over an RF interface (read as receive sensitivity measuring path; see pg. 6, lines 1 - 5) through a communication with either the transmit/receive antenna (202) (read as transmit-and-receive path) or the diversity receive antenna (17)

(read as receive only path), the VSWR measuring (read as receive sensitivity measuring) method of a GSM BSS (read as a communication system) comprising (see fig. 1; fig. 5; pg. 4, line 7 - pg. 5, line 27; pg. 6, lines 1 - 9; pg. 6, line 29 - pg. 7, line 26): (a) receiving the test call (read as test signal) from the test transceiver (32) (read as terminal) at the diversity receiver (13) which is coupled to diversity receive antenna (17) (read as receive only path and therefore a receive sensitivity path) (see figs. 1 & 5; pg. 5, line 36 - pg. 6, line 12; pg. 5, line 36 - pg. 6, line 9; pg. 7, lines 17 - 26); (b) calculating a cable loss between the diversity receive antenna (13) (read as receive sensitivity measuring path) and the test transceiver (32) (read as terminal) since it is diagnostics system and at high frequencies cable loss needs to be accounted for in the interest of precision measurement; receiver (12) (read as the receive sensitivity measuring path) receives the test signal by the test transceiver (32) (read as terminal) in (a) and the cable measured in (b) to measure the VSWR of antenna (16) (read as receive sensitivity measuring path) (see pg. 5, line 36 - pg. 6, line 12).

Consider **claim 11** as applied to claim 10, Rees et al. disclose that in order to test (read as measure) the receiver (12) (read as second receiver) coupled to the diversity receive antenna (17) (read as receive-only path), the control circuitry (20) (read as terminal) transmits a test call (read as communication between first transmitter and second receiver; see page 4, lines 36 - 38 and page 5, lines 1 - 27) through transmitter (11) (read as first transmitter) which is coupled to the transmit/receive antenna (202) (read as transmit and receive path; figure 3) and is received by the receiver (12) (read as second receiver; see page 4, lines 36 - 38 and page 5, lines 1 - 27).

However, Rees fails to disclose receiving the test signal from the terminal through an antenna.

In the related field of endeavor, Hokkanen discloses receiving a predetermined test signal at the antenna of the receiver transmitted from the test transmitter (read as terminal) (see col. 1, lines 10 - 39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Rees with the teachings of Hokkanen in order to provide self testing ability at the base station using its own over the air transmission and reception functions and test the entire reception path from the antenna to the receiver and not just the receiver.

Consider **claim 13** as applied to claim 10, Rees et al. disclose that tests can be carried out at different signal levels and also RBDS (21) has the functionality to select an appropriate test level signal (read as the terminal transmits the lowest receive level signal to the receive sensitivity measuring path, the lowest receive level signal being acceptable to the receive sensitivity measuring path; see page 6, lines 11 -12; page 7, lines 31 - 38; and page 8, lines 1 -2).

Consider **claim 16** as applied to claim 11, Rees et al. disclose diversity receiver (13) coupled to diversity receive antenna (17) (read as receive only path), the test transceiver (32) (read as terminal) sets up a test call (read as test signal) which is transmitted by the GSM BSS (read as communication system) to the diversity receiver (13) (read as receive only path) (see pg. 7 lines 11 - 26).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rees (UK App. # GB 2,272,604)**.

Consider **claim 14** as applied to claim 10, Rees et al. fail to disclose a timer for automatically turning off the receive sensitivity measuring device when the terminal transmits the test signal and a predetermined time has passed.

The Examiner takes Official Notice that it is notoriously well known in the art of wireless communication to implement a power save or sleep mode function in any device.

Therefore it would have been obvious to a person of ordinary skill in the art to implement a timer for automatically turning off the receive sensitivity measuring device due to preset period of inactivity in order provide power efficiency and prolong battery life.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rees et al. (UK Patent Application # 2,272,604)** as applied to claims 1 and 10 above, and further in view of **Donovan (IMPS - Instant Messaging and Presence Using SIP. Fall VON Developers' Conference, Sep. 13, 2000, www.dynamicsoft.com)**.

Consider **claim 12** in view of claim 10, Rees et al. fail to disclose a method comprising: checking that the terminal of the measuring device has transmitted the test signal and the receive sensitivity measuring path has received the corresponding test signal, and turning off the measuring device.

In the related field of endeavor, Donovan disclose a method in the Session Initiation Protocol or SIP where Alice (read as terminal) sends a subscribe message

Art Unit: 2618

(read as test signal) and the proxy server (read as receive sensitivity measuring path) after receiving sends back an accepted message (see pg. 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the teachings of Rees et al. with that of Donovan et al. in order to implement a well known method for reliable communication.

Rees et al. fail to disclose turning off the measuring device.

The Examiner takes Official Notice that it is notoriously well known in the art of wireless communication to turn off an electronic device after intended use.

Therefore it would have been obvious to a person of ordinary skill in the art to turn off the sensitivity device to ensure power consumption.

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Art Unit: 2618

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1102. The Examiner can normally be reached on Monday-Friday from 9:30am to 7:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Fayyaz Alam

April 27, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 4/29/07